CLAIMS CONSIDERED BY EXAMINER
OFFICE ACTION OF MARCH 12, 2002

25. (Twice Amended) An optical symbology imager, comprising:

a multiple line charge coupled device (CCD) having an active area;

a focusing apparatus comprising a focusing disk with multiple optical positions to provide different focal lengths, said disk being rotatable so that each of said multiple optical positions can move into an optical path of said imager;

a microprocessor for controlling said focusing apparatus and operation of said CCD, so that said CCD performs image capture producing image data for each of said multiple optical positions;

said microprocessor controlling said CCD to shift out said image data substantially serially;

said microprocessor evaluating transitions between light and dark data in a central set of multiple lines to produce a representative value for each of said multiple optical positions, wherein a largest representative value corresponds to one of said optical positions producing optimum focus; and

wherein said CCD disposes of a first set of multiple lines at a first rate of speed during focusing, and then samples a second subsequent set of multiple lines from said central set of scan lines at a second rate of speed less than said first rate of speed during focusing.

27. (Amended) An optical symbology imager as recited in claim 25, wherein said representative value is produced by totaling a first seven to ten values from multiple values produced for each of said multiple focusing positions.

36. An optical symbology imager as recited in claim 25, wherein said optical symbology imager is hand-held.

40. (Twice Amended) An optical symbology imager as recited in claim 25, wherein said first set of multiple lines is 246 lines.

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41. (Twice Amended) An optical symbology imager as recited in claim 25, wherein said second set of multiple lines is substantially ten lines.

42. An optical symbology imager in accordance with claim 25 wherein said multiple line CCD has a resolution of 659 by 494.

43. An optical symbology imager in accordance with claim 25, wherein said microprocessor only utilizes said central set of multiple lines to produce the optimum focus.

~~44~~. (Amended) An optical symbology imager comprising:

a non-holographic light transmissive focusing apparatus comprising a focusing disk with multiple optical positions to provide different focal lengths, said disk being rotatable so that each of said multiple optical positions can move into an optical path of said imager;

a microprocessor for controlling said focusing apparatus and operation of a multiple line charge coupled device, so that said CCD performs image capture producing image data for each of said multiple optical positions;

said microprocessor controlling said CCD to shift out said image data substantially serially; and

said microprocessor evaluating transitions between light and dark data in a central set of multiple lines to produce a representative value for each of said multiple optical positions, wherein a largest representative value corresponds to one of said optical positions producing optimum focus.

45. (Amended) An optical symbology imager in accordance with claim 44, wherein said representative value is produced by totaling a first seven to ten values from multiple values produced for each of said multiple focusing positions.

47. An optical symbology imager in accordance with claim 44, wherein said multiple line CCD has a resolution of 659 by 494.

48. An optical symbology imager in accordance with claim 44, wherein said microprocessor only utilizes said central set of multiple lines to produce the optimum focus.

49. (Amended) An optical symbology imager in accordance with claim 25, wherein said multiple optical positions are at least two.

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50. (Amended) An optical symbology imager in accordance with claim 25, wherein said multiple optical positions are eight.

51. (Amended) An optical symbology imager in accordance with claim 25, wherein said multiple optical positions are twelve.

52. (Amended) An optical symbology imager in accordance with claim 44, wherein said multiple optical position are at least two.

53. (Amended) An optical symbology imager in accordance with claim 44, wherein said multiple optical positions are eight.

54. (Amended) An optical symbology imager in accordance with claim 44, wherein said multiple optical positions are twelve.

55. (New) An optical symbology imager in accordance with claim 44, wherein said CCD disposes of a first set of multiple lines at a first rate of speed during focusing and then samples a second subsequent set of multiple lines from said central set of scan lines at a second rate of speed less than said first rate of speed during focusing.

CLAIMS

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a multiple line charge coupled device (CCD) having an active area;

a focusing apparatus comprising a focusing disk with multiple optical positions to provide different focal lengths, said disk being rotatable so that each of said multiple optical positions can move into an optical path of said imager;

a microprocessor for controlling said focusing apparatus and operation of said CCD, so that said CCD performs image capture producing image data for each of said multiple optical positions;

said microprocessor controlling said CCD to shift out said image data substantially serially;

said microprocessor evaluating transitions between light and dark data in a central set of multiple lines to produce a representative value for each of said multiple optical positions, wherein a largest representative value corresponds to one of said optical positions producing optimum focus; and

wherein said CCD disposes of a first set of multiple lines at a first rate of speed during focusing, and then samples a second subsequent set of multiple lines from said central set of scan lines at a second rate of speed less than said first rate of speed during focusing.

27. (Amended) An optical symbology imager as recited in claim 25, wherein said representative value is produced by totaling a first seven to ten values from multiple values produced for each of said multiple focusing positions.

36. An optical symbology imager as recited in claim 25, wherein said optical symbology imager is hand-held.

40. (Twice Amended) An optical symbology imager as recited in claim 25, wherein said first set of multiple lines is 246 lines.

41. (Twice Amended) An optical symbology imager as recited in claim 25, wherein said second set of multiple lines is substantially ten lines.

42. An optical symbology imager in accordance with claim 25 wherein said multiple line CCD has a resolution of 659 by 494.

43. An optical symbology imager in accordance with claim 25, wherein said microprocessor only utilizes said central set of multiple lines to produce the optimum focus.

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51. (Amended) An optical symbology imager in accordance with claim 25, wherein said multiple optical positions are twelve.